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Latvian Pension Reform

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This report was prepared by Louise Fox (Task Manager), and Edward Palmer (Consultant), with contributions from Inguna Dobraja, and Ingemar Svensson. It is based on an earlier, unpublished paper (by Louise Fox, Edward Palmer and Don McIsaac). Helpful comments were received from a number of participants in seminars at the World Bank and elsewhere, and also especially from Robert Palacios, Edward Whitehouse, and Anita Schwarz. E-mail: lfox@worldbank.org

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I. OVERVIEW OF LATVIAN PENSION REFORM

In 1995, Latvia became the first country in Central and Eastern Europe to implement parametric reform of the Soviet-style PAYGO pension system, and the first in the world to implement the "notional defined contribution system" (NDC) originally designed for Sweden (Palmer, 1999). The Government's intention was to follow the overhaul of the PAYGO system with the creation of a funded second tier by 1998, but the reform has lagged. Public acceptance of the new system has been poor, and pressures for rollback of the reforms have grown. In the pre-election period of 1998, many of these pressures were accommodated. Meanwhile, other transition economies are blazing a new path. In 1997, Hungary implemented a full parametric reform with a funded second tier, and in 1998 Poland passed all legislation to implement one as well, using the NDC approach for the PAYGO (based on the Latvian and Swedish experience). Countries as distinct as Russia, Mongolia, and Brazil are all considering adopting variants of the NDC approach Latvia pioneered.

Latvia's early successes encouraged many of its neighbors, and the pension reform community. Indeed, Swedish newspapers ran stories about the Latvian implementation of the Swedish reforms ahead of Sweden. After such a splashy beginning why did the Latvian reform stall? What has been the net effect of the reforms after the roll backs? How did Latvia balance the difficult issues of system incentives, fairness (within and across generations) and affordability? What are the lessons of the Latvian experience with the NDC system for other reforming countries? These questions are the subject of this paper. In section I, we set the stage for the reform, describe the key provisions of the original reform and discuss the subsequent amendments. In section II, we use simulations to analyze the macro-economic and microeconomic impact of the reform. In section III, we evaluate the reforms, drawing lessons for other countries.

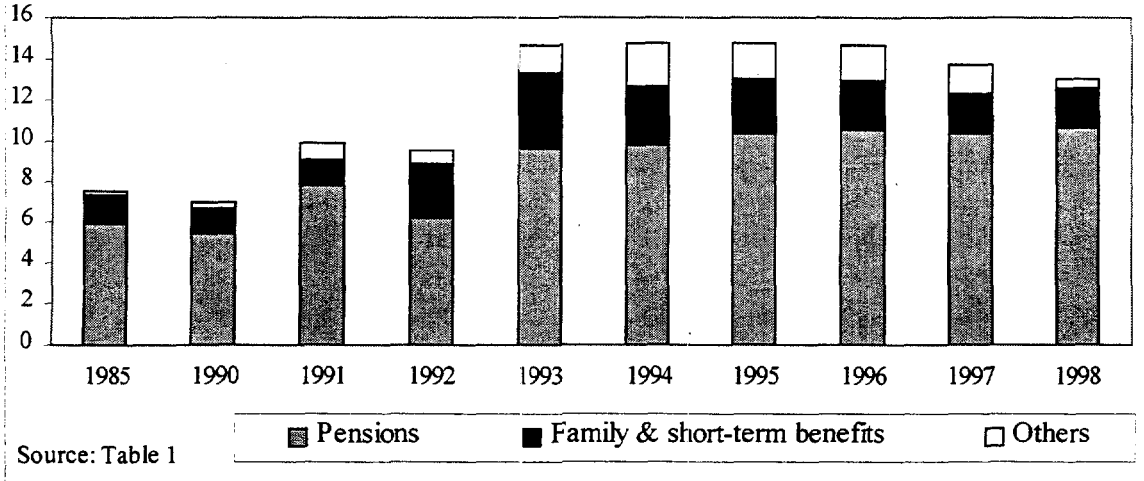
THE SETTING: TRANSITION AND THE GOALS OF THE REFORM

Since achieving independence from the Soviet Union in 1990, Latvia has moved steadily toward establishment of a market economy and the development of democratic institutions. The first years of independence were difficult. Income fell by over 40 percent and prices soared 900 percent in 1992. By 1993, stabilization was successful, a new, stable currency was launched and the structural reform of the economy was underway. Prices are now fully liberalized and trade is open. Privatization is almost complete, with only a few large enterprises and some housing remaining. Despite a banking crisis in 1995 and recent fall out from the Russia crises, Latvia has realized positive economic growth since 1996 and medium term growth prospects are excellent. Latvia hopes to enter the European Union with the first group of eastern countries.

As in other East European countries, Latvia entered the transition with a full welfare system, promising cradle-to-grave income maintenance. Reform of this system has been an essential, but difficult, part of the transition. An initial reform was undertaken in 1990-1992, primarily designed to enhance the social safety net during stabilization and price liberalization phase. This legislation basically enshrined previous Soviet benefit rights,

including a multiplicity of special pension regimes, sickness and maternity benefits, and numerous allowances. In December 1991 an employment benefit was created.
As the transition proceeded, it became increasingly clear that many of the entitlements that seemed affordable and appropriate under central planning were hindering the development of the market economy. The most obvious reason was the high and rising cost, which posed an increasingly greater fiscal burden, crowding out the savings and investment needed to restore growth. Expenditures on cash transfers climbed from an already high 7 percent of GDP in 1985 to over 14 percent of GDP in 1994 (Box 1).

Box 1: Latvia, 1985-1998: Expenditures on Cash Transfers (percent of GDP)



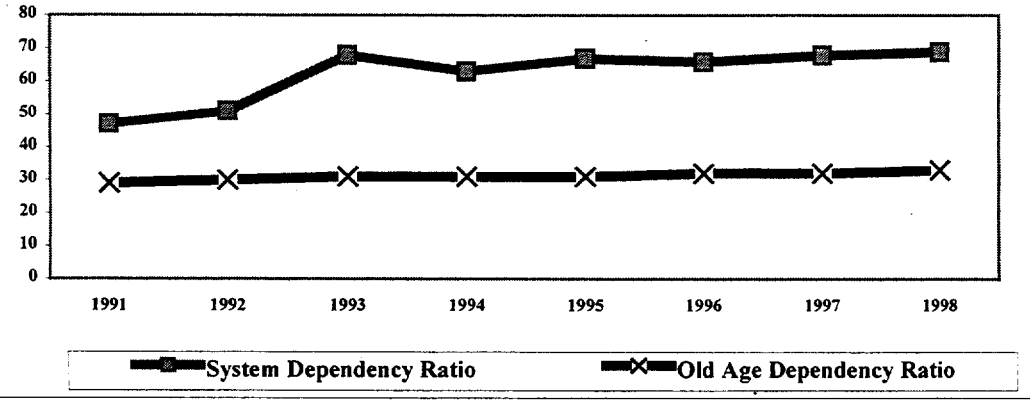
Source: Table 1

Most of this increase was accounted for by massive growth in pension expenditures relative to GDP - from 5.5 percent in 1985 to 10.4 percent in 1994. Expenditures increased both because of a large growth in pensioners since 1990, and because benefit levels in real terms did not fall as far as GDP. New benefits created (such as the expansion in family benefits and the new unemployment benefit) also contributed to the cost squeeze. Stop-gap measures to reduce the fiscal burden, (for example, less generous indexation provisions) were enacted in 1993. However, by 1994 it was clear that the system was unsustainable financially even with a restoration of economic growth.

Equally important, however, were the effects that the welfare system was having on incentives to work and pay taxes. High payroll taxes discouraged employment during a period of rising unemployment. These high rates (38 percent) encouraged evasion and avoidance, and ultimately the development of the shadow economy. The weak connection between contributions and benefits provided additional incentives for both employers and employees to reach agreements on "under-the-table" remuneration payments for work. Pensions only depended on years of service, not on the level of contributions. In fact, for workers to be entitled to a benefit, it was sufficient for employers to contribute an amount based on the minimum wage.

Between 1991 and 1995, the number of persons for whom contributions were being paid had declined by almost 50 percent. This flight from taxes, combined with generous retirement provisions that discouraged work, and a weak economy, caused the ratio of pensioners to contributors to rise to 67 percent by end-1995 (Box 2). State provision of sick leave at full wage replacement from the first day invited abuse by employers and employees. Despite a falling number of contributors, sickness benefits paid rose at roughly the same pace as total expenditure.

Box 2: Latvia, 1991-1998
Old Age and Pension System Dependency Ratios



Large increases in public pension expenditures as a percent of GDP were characteristic of all transition economies during this period (Box 3). Compared, for example, with Poland or Slovenia, Latvia was doing well. But Latvia is poorer than these countries, and could not as easily afford this expenditure level, much less the alarming increase. This increase was also very high by world standards. For example, from 1985 to 1995 pension spending as a share of GDP in the OECD on average rose from 6.2 to 6.9 (well below Latvia's level despite similar demographics).

Recognizing the need for fundamental reform, the Government began a systematic overhaul of the whole welfare system. Working groups were formed throughout the Ministry of Welfare to develop new laws. In 1994, a concept paper for a new pension system was sent to Parliament. In 1995, in a burst of activity, seven new pieces of legislation were enacted, covering the financing, eligibility and benefit structure of all significant cash transfers. The goals of the reforms were to:

- ensure the medium and long term affordability of the welfare system without compromising the goal of an adequate social safety net;
- improve transparency and increase public acceptance of the system;
- reduce re-distributions in the social insurance system – after 50 years of the Soviet system, this was an important goal for all policy makers;

- reduce administrative and compliance costs and incentives for abuse; and

- increase the contribution of the welfare system to economic growth and development by increasing savings and encouraging capital market deepening.

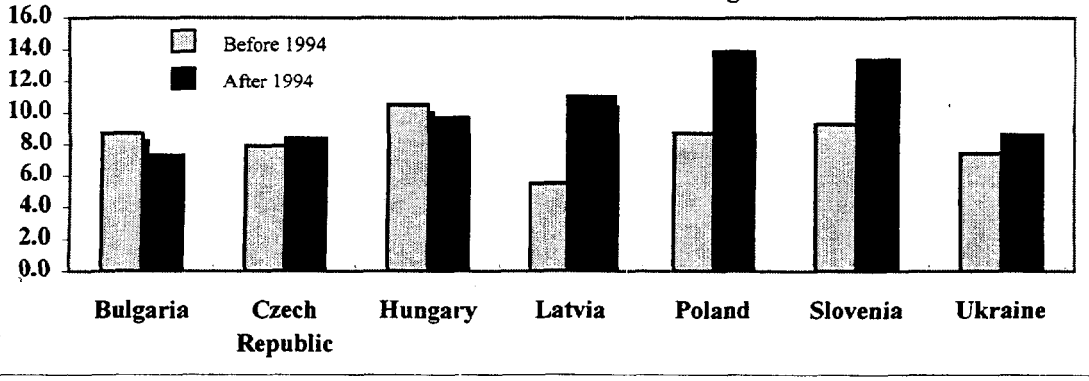
The main elements of the reform were:

- *Pension system:* creation of a new pension system with benefits based entirely on contributions, with a provision for the development of a funded, privately managed tier;

- *Financing:* (a) gradual lowering of social tax rates, reallocation of contributions between employer and employee and unification of the management of expenditures and reserves within an autonomous social insurance fund; and (b) moving the non-contributory benefits (social assistance and family allowances, social pensions, interior ministry pensions, and employment services expenditures) from the social insurance budget to general revenues;

- *Other insurance benefits:* (a) creation of a separate occupational disease and injury insurance scheme; (b) reform of sick leave to reduce abuse by making the employee responsible for the first day and the employer responsible for the rest of the first two weeks; and (c) changing the unemployment benefit from one based on the minimum wage to one based on the individual's contribution wage and years of service, with phased benefit reductions in order to increase the incentive to look for a job.

Box 3: Pension Expenditure in Percent of GDP
Selected countries of the ECA region



The reform process continued through the decade. In 1997, legislation regulating private pensions was developed, and amendments were made to the previous legislation. In 1998, the legislation creating the second tier (mandatory funded pension system) was developed and sent to Parliament. Of the reforms, the pension reform is by far and away the most dramatic change, and it is the focus of the paper.

THE OLD PENSION SYSTEM

The key to controlling social insurance expenditures for Latvia was pension reform. A mature demographic structure, combined with the withdrawal of older workers from the labor force in the face of economic restructuring, swelled the number of pensioners, while lower participation of women with children, increased evasion and a growing informal economy reduced the number of contributors. With an aging society, a weak fiscal administration and low savings, Latvia could not afford to promise high levels of income replacement to large portions of the population. Reduction of entitlements was required.

The old-age pension system in place prior to the 1995 reform provided universal coverage by at most age 55 for women and age 60 for men. Benefits could be claimed from age 40 for a range of occupations and categories of people—in effect, a system of hidden subsidies to select groups. Qualifying conditions included: years of service in selected occupations where work was dangerous (for example, deep-sea salvage work) or where for physical reasons, it was believed that most people would have to stop working earlier (pilots, wind instrument players, ballet dancers, etc.). Other qualifying conditions were social - e.g. partial disability, dwarfism, being the parent of many children. The benefit formula included a guaranteed minimum pension of 30 percent of the national average wage, with an increase of 0.4 percent for each year of service. In July 1995, the average old-age pension was 33 lats[1], or 50 percent of the average net wage (pensions were not taxable). This formula implied full wage indexation for pensions, although in practice this indexation did not take place when revenues were not adequate.

THE REFORM CONCEPT

In January 1995, the Government submitted to Parliament a new pension reform concept. This called for the introduction of a three-tier system.

- The first tier would be a modified PAYGO system, with stronger links to contributions and a minimum pension to protect the lifetime poor;
- The second tier would be a mandatory, funded system of privately managed savings accounts, created by assigning a portion of contributions to the public system to these accounts. This would result in a partial funding of the mandatory system, reducing the debt for future generations;
- The third tier would be voluntary, privately managed pensions, organized primarily (but not exclusively) through the employer.

This concept was accepted by Parliament, and work began immediately on the first stage of the reform - new legislation for the first tier. This legislation was submitted to Parliament

[1] The Latvian currency introduced after independence is the *lat*. In June 1999, one dollar equaled about 0.6 lats; one lat is worth about $1.80.

in July 1995 and approved in November 1995, as part of the package of welfare system reforms. The new system took effect in January 1996.

THE NEW SYSTEM – THE NDC PAYGO OLD-AGE BENEFIT

The new PAYGO system was a major departure from the old system (Annex Table 2). It was introduced with a big bang. Workers had no choice whether they entered the new system or not – from January 1996, all contributors were in, although there are transition provisions to smooth the change in pension determination. The main features are described in the next paragraphs.

Tying benefits to contributions –the NDC pension. The new pension system is based on a notional account principle. It is designed to mimic a lifetime contribution-based pension that would be offered by an insurance company. The system starts by giving everyone paying the social tax an account. As contributions earmarked for the pension system are paid, the account is credited, as if it were a savings account. Contributions credited to the account are based on a contribution rate of 20 percent. The notional capital in the account earns a rate of return just like a savings account. Instead of a financial rate of return, the rate of return is equal to the growth of the sum of wages on which contributions are collected (the contribution wage base). At retirement, the pension paid is equal to the total capital in the person's account. For example, if a person has 10,000 lats in their account at retirement, and is expected to live 10 more years, the pension would be 1000 lats per year or 83 lats per month. The pension will be indexed, adjusting for price changes (and after year 2000, a mixture of wages and prices).

Incentives to contribute and delay retirement. The system strongly rewards contributions and delayed retirement. Previous contributions yield a rate of return as long as people continue to work, and all years of contribution count. This is a change from most public pension systems, which often fail to reward years of contribution after those required for a "full" pension (e.g. the old Swedish system, the current French system, etc.). Working past the minimum retirement age shortens the number of pension payments, allowing each to be higher. At the same time, notional capital increases.

The following example (Box 4) illustrates the NDC system for a person who begins to work at the age of 22 with yearly earnings of 1400 lats. We have projected individual earnings to increase at the same rate as the average wage[2] (in this example, 2 percent nominal per year. Upon reaching the age of 61, his/her earnings are assumed to remain unchanged, but the growth index continues to rise. With present Latvian unisex life expectancy at age 60 and above, the size of the benefit almost doubles from age 60 to 69. With a 10 percent higher life expectancy at age 60 and above, the size of the benefit is about 9 percent smaller. If individuals in the younger generation -- whose lives after 60 are 10 percent longer than the older generation -- want to have the same yearly benefit, they will have to work a little over a year longer. If the earnings of the individual continue to

[2] This illustration implies a completely flat age earnings profile, with a decline in real terms after 60.

increase after 60, then - by definition - individual contributions will be greater, as will the benefit.

Retirement age. The standard retirement age is 60 for men and women. Women have the right to take early retirement at age 55. This provision was added by Parliament in response to strong lobbying. The early retirement pension is given at an actuarially fair rate, and financed from the pension fund. The actuarially fair pension was expected to be so low that those in this category would continue to work. However, because it was low for those who claimed it, Parliament was put under pressure to guarantee a minimum pension to these cases (see below).

Transparent subsidies for redistribution. Relative to the previous system, there are many fewer privileges for special groups within the system, and these are more transparent and mostly not financed through cross-subsidization among beneficiaries. A few occupations (e.g. the military) still retain the right to retire early. The difference between an actuarially fair pension and their pension is financed by a transfer from the military budget or the state budget. There is a minimum pension for all those who reach the age of 60, set by Government decree. It is currently about 56 percent of the average pension, and about 28 percent of the average wage. It is financed through the cross subsidies within the pension fund, and is not available to those who take a pension under the special early retirement provisions. In June 1996, 4% of pensioners were covered by the guarantee.

Box 4: Simulated NDC Account and Pension

				Present Life Expectancy			Increase in Life Expectancy, 10%		
Age	**Earnings[1] (Lats)**	**Growth Index[1]**	**Notional Capital**	**Pension (Lats)**	**Replacement Rate[2]**	**Life Expectancy**	**Pension (Lats)**	**Replacement Rate[2]**	**Life Expectancy**
22	1400	1	280						
23	1456	1	572						
24	1514	1	874						
....	.....								
....	.....								
60	2971	2.1223	23176	1417	49%	16.35	1289	44%	17.9
61	3031	2.1647	24245	1539	52%	15.75	1399	47%	17.3
62	3091	2.2080	25348	1673	55%	15.15	1521	50%	16.6
63	3153	2.2522	26486	1819	59%	14.56	1654	53%	16.0
64	3216	2.2972	27659	1978	63%	13.98	1799	57%	15.3
65	3280	2.3432	28868	2150	67%	13.43	1954	61%	14.7
66	3346	2.3901	30115	2342	71%	12.86	2129	65%	14.1
67	3413	2.4379	31400	2553	76%	12.3	2321	69%	13.5
68	3481	2.4866	32724	2792	82%	11.72	2538	74%	12.8
69	3551	2.5363	34088	3046	88%	11.19	2769	80%	12.3
70	3622	2.5871	35495	3327	94%	10.67	3024	85%	11.7

[1] Wages assumed to grow at 2%

[2] Replacement of individual's wage, last year of life.

Pension credit for non-contributory periods was drastically reduced, and these subsidies are now explicit, as any pension credit for non-contributory periods requires actual

contributions into an individuals notional account from the state budget (general revenues). For time spent in military service, or at home taking care of children (maximum 1.5 years per child), contributions to the pension fund are made by the state budget in the form of budget transfers, using the minimum wage as the contribution wage for transfer purposes. The cost of these transfers to the state budget in 1997 was less that 0.1 percent of GDP. For those receiving social insurance benefits (e.g. unemployment benefits, disability benefits, etc.) transfers are made from these funds to the pension fund.

The reason for this rather awkward transfer mechanism is to avoid the type of non-transparent cross-subsidization for which PAYGO systems are famous. In Latvia, it worked. The original provisions (approved by Parliament) provided coverage for 3 years of paid childcare leave and all years of (covered) higher education, the latter from the Ministry of Education budget. However, once the annual bill for these non-contributory periods arrived, the Ministry of Finance quickly developed proposals to scale them back to what is described above.

Other measures to increase transparency. Since July 1997, annual statements have been sent out. Presently, these include information on paid contributions. Once all historical information about service years has been entered into the system, statements will also provide information about individual's current account balances and the pension they would receive if they retire at age 60, 65, and 70 under standard assumptions. G values (life expectancy factor) for the coming year are also published annually.

Transition rule. Key issues in finalizing the legislation involved valuing acquired rights in the old system. The main issue was how to calculate initial pension capital from the old system. In most countries when a new system is proposed, credit is given for acquired rights under the old system, either through a mixed pension (part from the old system, part from the new system) or through capital placed in an account in relation to their acquired rights. For example, in Chile, workers who switched to the new system got bonds whose face value equaled the present value of their accumulated rights. In Poland, for those who switched, the initial notional capital was set equal to the present value of the acquired rights under the old system.

In Latvia, the lack of records made this challenge more daunting. While individual records of years of service and wages existed (in "workbooks"), the hyperinflation of 1991-2 made these old ruble salary records very difficult to use. No reliable price indices existed. Any method to set a value on these would have been arbitrary. As there were no centralized records or data, simulations of various formulae were impossible, which increased the reluctance of policy makers to base future pension liabilities on old salaries. On the other hand, it was agreed that *years of service* according to workbooks were important to honor.

One of the key goals of the pension reform was to improve incentives to contribute, in order to reduce the deficit of expenditures over contributions. One way to encourage contributions while honoring past work histories was to set a value for initial capital by using service year records and current earnings levels. It was decided to base initial pension capital (and thus in a large measure future pensions) on contributions in the years

immediately following the reform. This was in effect placing a very high social value on contributions in the first years of the system. Earnings levels for the calculation of initial capital for years of service prior to 1996 were set according to the following table (Box 5). A related issue was how to phase out rights to early retirement, and what compensation should be given for these years. It was decided that: (a) the minimum retirement age for all special groups would be raised by 6 months per year to the standard retirement age, and (b) to compensate for the acquired rights, their pension capital would be increased in proportion to their early retirement right and years of service in the occupation. For example, for a man with 20 years of service in an occupation which provided the right to retire at 50, the pension capital for those years would be increased by 60/50 (a 20 percent increase).

Box 5: Latvia – Transition Rules for Calculating Initial Notional Capital

Retirement year	*Formula*
1996:	The average contribution wage[3] for the whole population, 1995
1997:	The average of the individual contribution wage, 1996-7
1998:	The average of the individual contributions, 1996-1998
1999	The average of the individual contributions, 1996-99
2000 and after:	The average of the individual contribution, 1996-2000.

To compute average annual earnings from 1996-2000, monthly earnings from these years are first converted into 1996 values by deflating them with the CPI. Then initial capital in 1996 values is computed as: the number of service years times the average annual wage in 1996 values times the contribution rate of 20%. This value is then indexed forward from 1996 to the appropriate year (depending on the year of retirement) in accordance with the development of the covered wage sum, i.e. the index normally used to determine the year-end value of notional capital.

For older workers, these transition rules have the effect of basing most of the pension on the last few years earnings – in effect, a classic DB rule. The criticism of this type of benefit rule is that: (a) it disproportionately benefits those with sharper age-earnings profiles, and (b) it discourages contributions in the younger years. For Latvia at the transition, these criticisms are not very important. There is no way or reason to influence past behavior, and in the Soviet period, age-earnings profiles were very flat for all workers (especially in the post-inflation currency). For younger workers, the transition rules have a small impact.

Indexation of benefits. Benefits are indexed twice a year following the development of the consumer price index. From the year 2000 the law calls for indexation based on both wages and prices. The exact form is yet to be decided, but Ministry calculations are using 25-50 percent of the change in the wage sum.

[3] The contribution wage is the wage on which contributions are actually based. It thus takes into account evasion as well as ceilings, and so is usually lower than the economy-wide average wage

DISABILITY AND SURVIVOR PENSIONS

Disability. A new disability benefit was also designed to complement the new old-age pension. In designing a disability benefit formula, it was recognized that a benefit which depended only on contributions (accumulations in the notional account), would give inadequate insurance coverage for younger workers. Instead, disability benefits depend on the last 5 years of contributions and total years of service. A second key decision was what was being insured against – disability during working years and longevity for the disabled, or just disability during working years. It was decided that the disability system only covers the working age period. At age 60, those on disability begin to receive an old age pension (which lasts until they die). The old age benefit is the old age benefit calculated according to the standard formula or the disability benefit itself, whichever is greater. If the disability benefit exceeds the old age benefit, the difference is to be financed by a transfer from the disability fund to the old age pension fund. Any surviving minor children at the time of death are entitled to a regular survivors pension well.

The three categories of disability (degrees of loss of capacity to work) from the old system were preserved, as were the assessment procedures. The new law increased the benefit levels of severely disabled persons who need attendant care, (Group I) and the less seriously disabled with no work capacity (Group II), but decreased the benefit level of a group of persons who normally work, but have some form of physical impairment (Group III). The latter benefit is now a form of income supplement for the handicapped who work. The formulae were designed so that the net financial effect on the budget would be neutral if there was no change in assessment procedures, and so that conversion to an old age pension would not result in a lower benefit in most cases.

The benefit formulas are:

Group I: 0.45 * the individual average contribution wage + (service years/45) * 0.1 * the individual average contribution wage.

Group II: 0.40 * the individual average contribution wage + (service years/45) * 0.1 * the individual average contribution wage.

Group III: the minimum pension.

The individual average contribution wage is the average of the individual's own wage on which contributions were paid for the best 36 months of the 60 months preceding the time of the grant. No benefit can exceed five times the minimum wage (at current levels this would be a limit of 2 times the average wage). Persons disabled prior to entering the labor force are entitled to the guarantee level. There are also minimum guarantees of 1.6 times the minimum pension for Group I and 1.4 times the minimum pension for Group II. Benefits follow the same indexation as old age pensions (price indexation through 1999 and wage/price indexation from the year 2000).

Conversion of disability benefit status to old-age benefit status is a difficult issue, regardless of the type of old-age system a country chooses. Within the NDC framework, it is possible to impute individual earnings during disability, that is create a formula to provide an estimate of earnings foregone during disability periods preceding the minimum retirement age. The disability system can then finance old-age contributions during disability periods (money is transferred to the old-age system) and the old-age benefit can be calculated using these contributions to notional capital.

Latvia has chosen a variation on this theme. In the Latvian legislation, notional capital for the disabled is based on (imputed earnings equal to) the minimum wage. Upon reaching the minimum age for an old-age benefit, the beneficiary is entitled to retain the disability benefit or claim the old-age benefit depending on which is the large of the two. Since the contribution to notional capital for the disabled is based on the minimum wage – instead of some estimate of "normal" future earnings forgone – the entitlement to the highest of the two benefits clearly helps the long-time disabled to receive a reasonable benefit even in old-age. On the other hand there is a negative incentive here for older workers if they anticipate that a disability benefit can leave them better of in old-age than they would be by working all the way to the minimum pension age.

Survivors. Survivor benefits were also restructured to conform to the notional account principles. Benefits are related to the value of notional capital in the account (see Table 2). The survivors benefit is restricted to minor children. A minimum survivor's pension is also specified to protect the families of those who die young. Survivor pensions for spouses were eliminated in the new pension system. This is because for the prime working years (age 25–50) labor force participation is almost as high for women as it is for men. On average, 91 percent of men in this cohort were in the labor force in 1997, compared with about 84 percent of women. Given the 8-year difference between life expectancies in Latvia (in favor of women) and the tendency of men to marry younger women, this benefit was almost always received by women. But as most of these women are working and eligible for a pension of their own, this benefit was seen as an unnecessary subsidy, especially for spouses without children.

Reform Of Tax Collection

Legislation regulating the social tax was also reformed during this period. Four major changes were introduced. First, a ceiling and floor for covered earnings were added. The purpose of the ceiling was to limit liabilities of the state system, and make room for privately managed pensions. The ceiling is set by the Government, and is currently at about 6 average wages per year. The floor functions mainly as a presumptive minimum for agriculture, since Latvia has a minimum wage, and is currently set at 6 monthly minimum wages (or ½ of the minimum wage per month).

Second, the self-employed and persons employed in agriculture were made exempt from coverage for unemployment and work injury, lowering their payroll tax by several percentage points, and those above the minimum pension age were made exempt from unemployment and disability coverage. A 5-year schedule for gradually lowering the

payroll tax and transferring the responsibility for payment of half the tax to the employee was also adopted. However, in 1996, the Ministry of Welfare, faced with growing collection problems, amended the legislation to make both changes all at the same time, but to postpone the lowering of the tax until 2001 (with a provision that Cabinet could lower the payroll tax prematurely if collections improved). As a result, the payroll tax will fall from 37 percent to 33 percent in 2001, and the employee's share will rise from 9 percent to 16.5 percent of covered wages. While it should be less disruptive to change the share all at once (i.e. there can be a one-time adjustment of wages), the postponement of the payroll tax decline seems in retrospect to have been a mistake. Once collections improved, the Government was pressured to give pension increases instead of tax rebates.

Third, the collection of taxes was transferred from the State Social Insurance Agency - SSIA - (under the Ministry of Welfare) to the State Revenue Service - SRS - (which reports to the Ministry of Finance. The reason for this change was that tax collection in Latvia (as in all transition economies) was very weak, as the function in the Government had to be created from scratch. Major issues such as the creation of a unique system of taxpayer numbers had to be solved. Protocols to handle large debts (where a workout and a settlement would be needed) had to be developed, and staff needed to be trained in tax collection functions such as auditing. In January 1996, the stock of tax debts for social taxes (e.g. taxes declared but not paid) stood at 4.2 percent of GDP, and for all other taxes at 5 percent. Estimates of evasion ran even higher. At the same time, since benefits depended on actual contributions, many were losing out on their benefits when evidence could not be found that the employer paid the contributions in full. Employers were unhappy as well, since they had to comply with two sets of regulations and respond to two agencies.

The SRS was receiving significant technical assistance from a number of sources that was beginning to pay off (for example, a special unit to try to handle large taxpayers was being created). Providing the same assistance to the SSIA to build up their functions seemed wasteful. In addition, the SSIA was striving to develop itself as a client-oriented benefits payment and fund management agency, and this task was enough, given the massive changes in the system that had been legislated. Collecting taxes was proving overwhelming for the SSIA, especially as the collection was decentralized to local offices and there was little management time available for central oversight. Conflicts were also arising internally over whether it was better not to collect taxes to keep people employed and off unemployment. Tax competition was also arising in the case of insolvency or liquidation. As debts continued to rise, the decision was taken by Government to transfer collection to the SRS. A project was initiated to prepare the transfer. Tax legislation was also aligned between the social tax and the income tax to facilitate this move. Although there was a rough transition, by end-1998 all tax debts in the economy as a whole were declining (See Murray and Fox, forthcoming).

As part of the reform of tax legislation, the tax treatment of pension income was also revised. Social tax payments are exempt from all taxes. Pensions granted under the new law are taxed above a minimum, (today equal to about 2/3 of the average wage). The

purpose of this was to "claw back" pensions from working pensioners, treating pension income similarly to other income.

INSTITUTIONAL DEVELOPMENT

New budgeting procedures. Complementing the policy reforms were changes in budgeting procedures and the institutional structure of fund management. Legally, the earmarked payroll taxes are now collected into 4 funds: the pension fund (funds earmarked for pension and survivor's insurance liability), the maternity, sickness and disability insurance fund, the unemployment benefit fund, and the occupational injury and diseases fund. Together, these funds are known as the Social Insurance Budget (SIB), which is a legally separate account at the Treasury, with the right to retain surpluses. The amount of the payroll tax allocated to each fund is set annually in the SIB budget approved by Parliament. Current and expected future allocations (factoring in the tax decline expected in 2001) are shown below:

Box 6: Latvia – Contribution Rates to Individual Funds

	Current	2002-2010
Pensions and Survivors	27.5	24.
Sickness, Maternity, Disability	6.5	6.0
Unemployment	3.0	3.0
Total	**37.0**	**33.0**

Source: Table 3

It should be noted that regardless of how much is allocated to the pension fund in reality, only 20 percent goes into the notional account. The rest is used to finance the pension debt from the old system. Old-age pensions and survivors insurance currently cost almost 28 percent of payroll. Administrative costs for the entire social insurance system are 1.5 percent of payroll (included in the contribution rate to each fund).

Creation of the State Social Insurance Agency. Latvia's policy reforms were complemented by a reform of the social insurance institutions. At the beginning of the reform, all the social insurance functions were performed by the "Social Insurance Fund", which was a department of the ministry. It was ill prepared for the tasks required under the reform. The organization was poor, personnel management was weak, and key departments and skills were missing (e.g. process management, budgeting, evaluation, communication and public relations, modern accounting and financial control. The information system was very weak and being upgraded without a strategic plan, resulting in poor hardware and software purchase decisions.

Senior staff at the "Fund" had been involved in the design of the reform, and they were aware of the need for change in the organization. In the spring of 1995, an organizational diagnostic was performed, which highlighted the weaknesses of the current structure and management. By the fall of 1995, business and IT development plans had been prepared to address these challenges, focused around transforming a civil service structure and culture into a client-oriented service agency. In January 1997, the agency was restructured into the State Social Insurance Agency (SSIA), with a corporate organization and new personnel

system. New departments were created, training of staff and management commenced, and offices were re-organized. Where previously clients had to move from office to office, paperwork in hand, now a 'one-stop' service counter handled most cases, saving time and frustration. Client feedback surveys were introduced in all offices. Contracts to purchases new IT and accounting systems were signed in 1998. When implemented, these systems should produce substantial staff savings as well as finally permit the SSIA to properly monitor budgets, expenditures, assets and liabilities.

Despite Latvia's efforts to develop implementation capacity, the implementation of the reform did not go smoothly. The main bottleneck was the antiquated IT system, which meant that until 1998, most offices did not have adequate computer systems and pensions were often calculated by hand. As the new formula was much more complex, this involved a lot of work. Office manuals and materials for the public, explaining the policies in simple Latvian, were not prepared until one year after the reform passed Parliament. The first year of implementation was chaotic. Treatment of cases was not standard, resulting in problems. Since the philosophy of the system was to rely heavily on incentives to change behavior, this lack of information damaged the system's credibility.

THE PUBLIC RESPONSE AND THE ROLLBACKS

For two years, Ministry of Welfare efforts had been directed towards formulating the new legislation, and not towards implementation. As a result, when the reforms were implemented in January 1996, the agencies were poorly prepared to administer the new system. No efforts were in place to communicate the new pension system to the population, especially those about to reach retirement age. Few staff in the local offices even understood the reforms. Not surprisingly, those who were expecting to retire below the normal age were especially surprised by their low benefit. Often they did not discover that they would not receive the guaranteed minimum benefit until after they had left their job. Some had been on unemployment for the year before so their pre-retirement wage was be very low.

Other problems with the transition rules developed as well. The legislation called for a ceiling on contributions, which was expected to generate a ceiling on pensions. However, the Government delayed in implementing the ceiling as the social insurance budget was still in deficit and any loss of revenue was to be avoided. As a result, the provision to value pension capital based on the past year or two of average contributions provided an even stronger incentive to contribute than was expected or desired. A few employees near retirement age borrowed money and made large contributions. Perhaps the most clear-cut examples of "winners" were persons with multiples of service year under the old law, e.g. for years spent in extreme conditions in Siberia. In these ways, a few gained entitlement to a pension 6 or more times the average pension.

Not surprisingly, those who received low pensions, e.g. women under 60, protested strongly to Parliament, using as political weapons the inequity of the benefits for those who had gamed the system by making large contributions in 1996. Parliament responded by:

- imposing a ceiling on all pension benefits of about 3 times the average wage;

- guaranteeing that all those who had contributed during the first years after the transition would have their capital valued the average wage, even if their own wage was lower; and

- extending 80 percent of the guaranteed minimum pension to those men from certain occupations entitled to collect a pension below 60 under the transition rules as well as to all women.

These changes restored some of the redistribution lost from the previous system. Providing an enhanced safety net against low income was a good idea, particularly during the transition period, when unemployment was rising and collection problematic. We do not have the data to check how many people benefited from this provision and what their work history was, but once the new computer system is in place and the work histories entered into the system, this analysis can be done.

The most troubling issue is the introduction of the guarantee for those who retire below 60 (all women are still eligible). If many of them continue to work, it is an unjustified subsidy. In addition, they face the risk of low-income replacement when they do finally quit working. If those eligible take the opportunity to quit work -- perhaps because they live with another earner, so current household income is acceptable -- the vulnerability of the household to poverty later rises. Better counseling and information for this group may help, but OECD experience suggests that many people still retire as soon as they reach minimum pension age, even with incentives such as Latvia provides. Latvia is currently reviewing this provision.

THE POLITICAL PRESSURES OF 1998

By the fall of 1997, it was clear that the reforms, combined with improved tax administration, had been successful in restoring short-term fiscal balance. Cash revenues in the account were ready to be used for either a payroll tax or the second tier. But the second tier legislation was not close to ready. The Government was also running a surplus in the state budget. With an election scheduled in the fall of 1998 and tensions rising in the governing coalition, the Government came under pressure to spend. This included using the growing surplus in the social insurance budget to give an *ad hoc*, extra benefit increase to pensioners, above the price indexation provided for in the law. The Government complied, first in October 1997 and again in March 1998, raising real pensions substantially.

- In October 1997, the Government shifted from the traditional "backward looking" indexation system to a forward-looking indexation. In effect, effective November 1, pensioners were given a double indexation - 4.1 percent for inflation which had already taken place, and 3.1 percent for expected future inflation. Inflation for November - March turned out to be as forecast;

- In March 1998 the Government announced additional indexations. Pensions for old pensioners (taken before the new law) were raised 15.8 percent, including 9.6 percent to make up for indexations not granted in 1995, when the budget was in deficit. Pensions for new pensioners were raised 5.8 percent. The Ministry of Finance projected inflation for the period was 3.1. (and actual turned out even lower).

The cumulative effect of these decisions was to raise real old-age pensions on average by 15%. As a result, the social insurance budget for 1998 was in deficit (using up reserves from 1997). While the system should return to surplus in 2000, considerably fewer resources will be available to start the second tier.

Measures taken to improve public understanding. The restructured SSIA took a number of new initiatives in 1997 to improve public understanding and acceptance of the new system. By 1998, the staff had been trained and staff manuals prepared. Media campaigns based on focus group information were undertaken. Population surveys were developed to measure the effectiveness of the campaigns. All contributors now receive contribution statements once a year, with an explanation of the system. Once the new IT system is in place (January 2000), this information will be available in local offices for all contributors, who will also be able to calculate their future pensions.

The missing link in the information campaign is the overall "why" of the system - the population still lacks information on the goals of the whole 3-tier reform. This message must come from the Government as a whole, and not the State Social Insurance Agency. Unfortunately, Latvia's fractured governing coalitions have not been able to come together on this point and prepare a media campaign with a clear message. In part, this is because there is no central locus for reform preparation (each ministry has its own part of the reform, and each ministry is headed by a different coalition party). It also reflects the overall weakness of post-Soviet countries in focusing on the importance of public communication.

Reforms of 1999. The fall in tax revenues associated with the Russia crisis has forced the Government to reconsider the level of pension spending once again, and develop proposals to restore the original intent of the reform - to reduce expenditures. The main proposals under consideration include: (a) eliminating the early retirement option for women; and (b) returning to backward-looking indexation. The first proposal would also increase the strength of the system's poverty protection, as it would ensure higher pensions for women (who tend to spend their last years in life alone). The Government is also considering an increase in the minimum retirement age for both men and women to age 62.

PRIVATELY MANAGED PENSIONS - THE THIRD TIER

In 1996, the Government also completed the development of the regulatory framework for supervising private management of pension funds, submitting legislation to Parliament that was passed in 1997. The law permits both individual and employer plans, all defined contribution. Contributions are exempt from both the income and payroll tax. Pension fund

managers will be licensed by the State Insurance Inspectorate, which has been expanded to handle additional regulatory tasks. Licensed pension funds will make a contract with asset managers, who are also licensed under complementary legislation regulating investment funds. Both laws took effect in July 1998. It is envisaged that the experience with the regulation of voluntary pension schemes will be, in effect, the pilot stage for the second tier, mandatory program.

Investment rules in the legislation are fairly liberal. The law sets limits on investments in securities by one issuer, on real estate investments, and on overseas investments (5 percent of total). Fund investments in the companies of the members or the managers are prohibited unless these are publicly traded shares. In this case they are subject to the limits above. The regulator may issue additional regulations, however, consistent with the objectives of safety and security.

THE DEVELOPMENT OF THE SECOND TIER

The legislative process. In keeping with the pension concept, original first tier legislation submitted to Parliament had included a provision calling for the establishment of the second tier by 1998. However, in the last reading of the law, Parliament struck out this provision. The Ministry of Welfare nonetheless tried to prepare the second tier legislation consistent with the concept while implementing the first tier legislation. Initial drafts were not satisfactory, as the inter-Ministerial cooperation needed to resolve issues was not forthcoming. Finally, in the summer of 1997, the Ministry of Finance agreed to take the lead in preparing the legislation. The basic concept was worked out, and draft legislation was submitted to Parliament in the fall of 1998.

Size of the second tier. In preparing the draft legislation, Latvia needed to make a number of key choices, covering participation, financing, and organization. Committed to a balanced budget, Latvia did not want to follow the lead of Poland and Hungary, and use deficit financing for the start. Therefore, the size of the second tier was left indeterminate in the law, with the amount of the contribution to be set by the government. The initial allocation is expected to be about 2 percentage points, rising to 7 percentage points by the year 2010. To provide stability to this system, a government decree proposing the contribution path for the decade is now being prepared. Participation will be mandatory for those under 30, and voluntary for those age 30–49.

Investments and Management. In the wake of the 1995 banking crisis (which involved massive fraud in a major bank), there was substantial opposition from the Bank of Latvia (the central bank) to the channeling of tax contributions into the hands of private asset managers. The original draft in the 1997 proposal called for one public monopoly asset manager. Eventually, this opposition was overcome, and participants will be allowed to chose among one public or several private asset managers.

The same concerns at The Bank of Latvia have also led to inclusion of very restrictive investment rules in the original draft legislation. The only investments allowed would be government-guaranteed securities of Latvia, other Baltic states, and G10 and other EU

countries. While these restrictions are appropriate for the public fund, they are not appropriate for all funds, as it will deny the Latvian private sector the long term capital mandatory pension funds provide (except the housing sector, which will benefit from investments in mortgage-backed securities). Given Latvia's balanced-budget philosophy, most of the money will have to go overseas unless these restrictions are revised. It is expected that these restrictions will be relaxed for privately managed accounts, either before the law is passed or shortly afterwards.

Most countries with mandatory funded systems offer a guaranteed rate of return on assets in the accounts, despite the controversy surrounding these guarantees. The current Latvia legislation does not offer any guarantees. Given the restrictive investment rules and the option of a state fund, it was not felt that any additional guarantees were needed. However, if the investment rules are relaxed for privately managed funds, this policy may also be revised. Latvia is also giving consideration to some form of fraud insurance.

Governance of the state asset manager is a key issue now being debated. As the state asset manager is a special department of the Treasury (who issues Latvian government papers), conflict of interest can arise with respect to investment policy. In addition, the state asset manager's overseas investments must be managed carefully to avoid loss of assets from excessive foreign exchange risk (Latvian currency could appreciate). The lack of financial market acumen in a transition country makes the creation of an independent governing board difficult. The legislation calls for a sub-committee of the cabinet of ministers to review investment plans every year.

Benefits. As second tier benefits are considered part of the mandatory old-age system, lump sum benefits are not allowed. Purchase of an annuity is required, either from a licensed private supplier or the government (on the same terms as a first tier benefit, that is with wage/price indexation). If a contributor dies before retirement, the balance in the account is used to contribute towards the general survivor benefit under the first tier.

Administration. To reduce administrative costs, the "clearing house" approach will be adopted (Box 7). The SSIA will in effect function as a pension fund, with asset management contracted out. Contributions will be collected by the tax authority, and passed on to the SSIA. The SSIA will be responsible for:

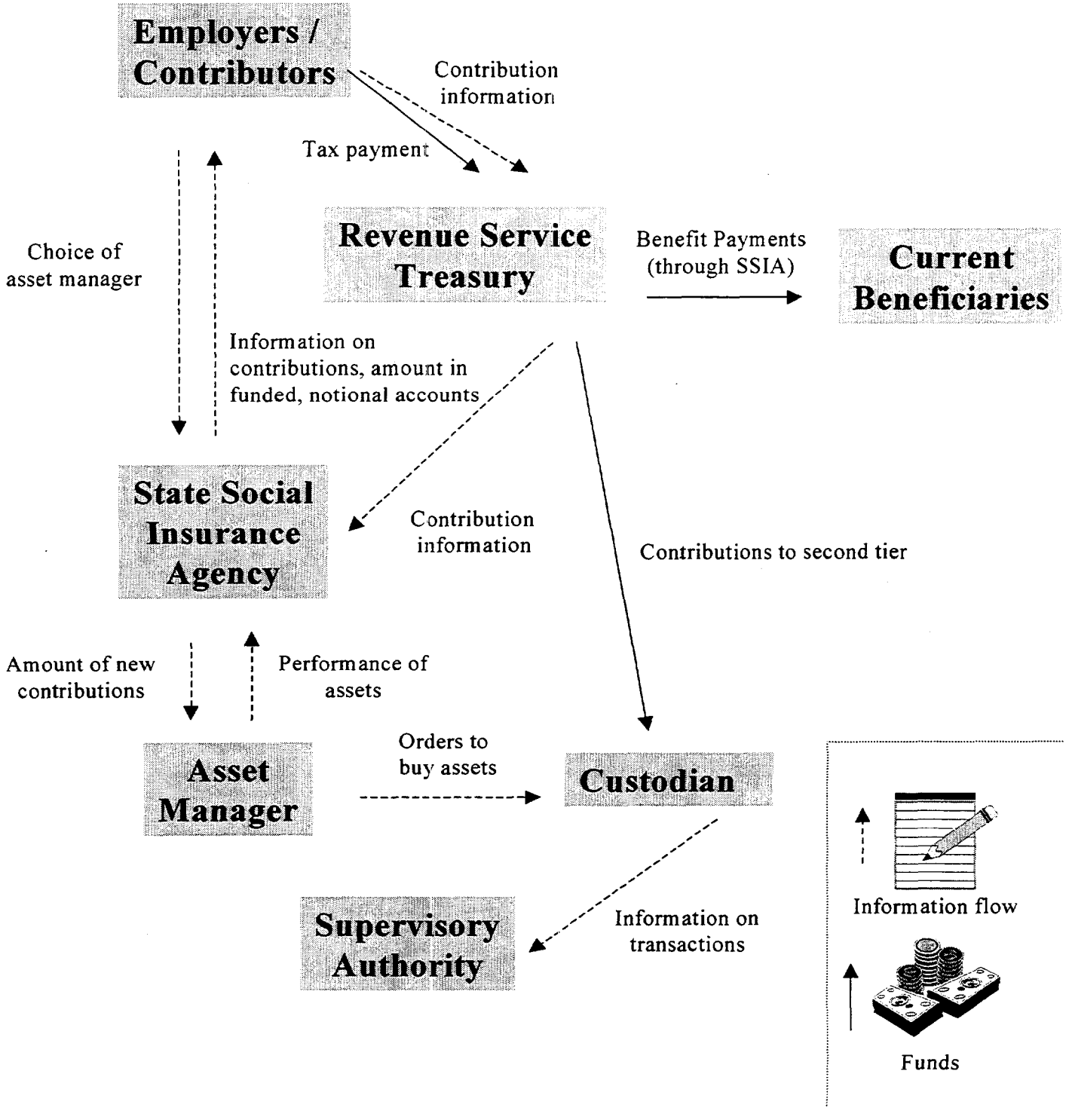
- collecting information from those eligible to participate on their choice of funds;
- channeling contributions to the asset manager selected by the participant;
- reporting to participants regularly on the value of their portfolio, based on information provided by asset manager; and
- serving as an annuity supplier of last resort (offering annuities on the same basis as first pillar annuities, including indexing provisions).

Licensing and supervision of asset managers will be responsibility of the Securities Commission (SC), which has the same responsibility in the private system. It has the power to regulate the industry, to monitor transactions and to intervene in case of any irregularities. It will also be responsible for insuring that the information provided to the agency and directly to participants (through public advertising, for example) is correct and not misleading.

Information management at the SSIA. Setting up the information management system in the SSIA will take at least 18 months. The information system project is expected to be completed in 2000[4]. Therefore, in the first year of operation, participants will not have a choice of asset managers. All funds will be channeled to a public asset manager in the Treasury. After the first of operation, participants will have choices. Those who do not choose will be automatically assigned to the public fund.

[4] The SSIA's highest priority is to get current benefit payment systems transferred over to the new system by November, 1999, to avoid Y2K problems plaguing the current software now in use (see above).

Box 7: Latvian Pension System:
Flow of Funds



II. ECONOMIC IMPACTS OF THE SOCIAL INSURANCE REFORM

Improving the microeconomic incentives and macroeconomic outcomes of the pension system was one of the main goals of the reform. In this section we analyze how close Latvia came to achieving these goals through a series of simulations. First the effects for individuals of different incomes are simulated, to identify the winners and losers, and how strong the micro-incentive effects actually are. Next, the short, medium and long term fiscal effects are simulated. The savings achieved (or lost) from various parts of the reform package are identified. Finally, the stability of the system over the next fifty years relative to the pre-reform system is analyzed.

Modeling pension systems is always a challenge, but it is especially tricky in a transition economy, for two reasons. First, the data systems were organized around the state sector, and only in the last few years have they been redirected at the broader economy. As a result, the historical data on individual and aggregate behavior is poor. But even if it were excellent, functions fitted to these data might still not be of much use in predicting the future given the rate of change. For example, what assumptions should be used regarding the future distribution of income, the development of the informal economy and future life expectancy in Latvia? The underlying official data on survival rates are very problematic, as they show fluctuations of as much as 23 months from year to year (which is very unusual). However, even in transition countries where the data collection systems are better and the data more stable, predictions on the future of life expectancy or birth rates are uncharted territory. This is because patterns in the transition economies of Eastern and Central Europe are quite different than other countries (OECD or emerging market). In our analyses, we try to indicate sensitivities. We also omit analyses we think are too uncertain (for example, ones which depend on predicting the future distribution of lifetime income, given that we do not even know the current distribution). Notes on the simulations are provided at the end of the text.

How Do the Benefits for Individuals Compare Under the Old and New Systems?

In the table below, we have calculated the pension in terms of average 1996 wages for persons covered completely within the NDC system (e.g. ignoring the effect of the second tier and the transition rules (Box 8). We assume the person contributes the whole time, which means 42 years of contribution at age 60, 47 years at age 65, and 52 years at age 70, using as the imputed wage the expected average contribution wage for 1998. We compare this simulated pension with what the same individual would receive under the old rules. In other words, we ignored the complications arising from the transition rules, by assuming that persons are covered entirely according to either the new or the old rules. We use current life expectancy estimates, and we do not consider the impact of wage growth in raising pensions under either system. We considered three types of individuals:

- someone whose lifetime wage equals the average wage;

- a lifetime low income worker, whose average lifetime wage is 1/2 of the average wage (resulting either from permanent low earnings perhaps because of part-time work or few years of service); and

- a lifetime higher income worker, whose average wage is 1.5 times the average wage.

Box 8: Simulated Pension Benefits, Old and New Pension System

	Age at Retirement				
	50	**55**	**60**	**65**	**70**
New System*			*(Share of average wage)*		
Low wage	13	17	23	31	43
Average Wage	25	34	46	63	85
High wage	38	51	69	94	128
Old System**					
Low Wage	42	44	46	48	50
Average Wage	42	44	46	48	50
High Wage	42	44	46	48	50
New/old			*(Percent)*		
Low Wage	30	38	50	66	85
Average Wage	59	77	98	129	170
High Wage	58	115	148	195	255

* New system benefits calculated on the basis of an average life time wage of 120 real 1998 lats (average wage).

** Old system benefits assumes national average wage used to index pensions in 1998 would be 120 lats.

\+ The guaranteed minimum is not included. It is about 26 % of the average wage in the new system. The minimum for those who have the right to retire under 60 and choose to exercise this right is 80% of normal guarantee minimum.

Assuming that under the old system the required quarterly indexation would have taken place[5], most new pensioners with full years of service retiring after 60 do not suffer a benefit decline compared with the old system. For those who work longer, benefits increase - as we have seen earlier they more than double for those who work another 10 years. Early retirees will be penalized. For example, a woman who retires at 55 will receive, on average, a 25 percent lower pension under the new system - if she stops working and contributing. Those who retire even earlier will suffer an even greater loss of benefits. It should be noted that owing to the transition 'safety net' rules, the lower income members of the transition generation (born about 1935-1950) will not suffer as much from

[5] This is a strong assumption. Without a major increase in payroll taxes or other financing, future claimants would not receive these benefits. See the simulations of medium term effects (below).

the loss of redistribution in the new system, and the higher income members will do quite well.

Benefits are also larger for those with higher incomes, reflecting the more direct link to contributions in the new system. Benefits are possibly smaller for those whose lifetime incomes are low. The lifetime poor should, in principle be covered by the guarantee, to the extent that their situation is not a result of poor health – in which case they are probably on disability benefits, and will normally receive a higher benefit than guarantee. The disadvantage of the contribution-related formula is that it is not redistributive within the age cohort towards persons with low earnings[6]. However, given that the old system was unaffordable, the projected benefits under the old system are probably on the high side (see below).

THE FISCAL IMPACT OF THE SOCIAL INSURANCE REFORM

One of the main goals of the reform was to reverse the upward trend in pension expenditures, and create a system that is affordable for the next generations. These goals were to be achieved despite a projected increase in life expectancy and a short-term fertility crash (expected to return to roughly replacement rate by 2010) – resulting in an increase in the projected old-age dependency ration over the coming half century, increasing expenditures and decreasing the contribution base. Will these goals have been achiever, and at what price? First we consider the medium term goal of stabilizing and reducing pension expenditures relative to GDP, and then we consider long-term system stability.

MEDIUM TERM OUTCOMES

In the first years of the reform the goal of reversing the upward trend in expenditures was in sight. In 1997, the system ran a surplus equal to 0.7 percent of GDP (Table 3). Without the extra indexations of 1997-98, the projected social insurance budget would show a surplus in 2000 of about 0.9 percent of GDP instead of a deficit of about 0.2 percent. Despite the fiscal effects of the 1997-98 indexations, the reform had an important fiscal impact. Total expenditures in percent of GDP have stabilized, and are expected to remain essentially constant through the year 2000. But revenues have declined as a percent of GDP since 1995 due to a decline in the number of contributors in 1996 and 1997.

Revenues are projected to decline again the period 2000-2005, creating a cash deficit in 2002 when the reduction in the overall contribution rate to from 37 to 33 percent begins. Both pension and other benefit expenditures will also decline during this period. A small cash surplus develops after 2002, and this is intended to go to the creation the 2nd tier of the mandatory old-age pension system. By the year 2007 an amount corresponding to an overall contribution rate of around 4 percent can be allocated for this purpose without incurring any debt, allowing a debt-free contribution rate of at least 6 percent of payroll by

[6] Persons with low earnings are frequently who do not work full time. Note that indexation based on the average development of contributions is , however, to the advantage of persons whose earnings grow less rapidly than the average.

2007, as not all age cohorts will participate. If government is able to eliminate completely the early retirement for women during this period, the surplus will be even larger.

Box 9: Projected Social Insurance Revenues and Expenditures, 1995-2005. Percent of GDP

	1995	2000	2005
Total Revenues	**12.4**	**11.5**	**10.3**
Social Tax	12.4	11.4	10.2
Transfers from state budget	0.0	0.1	0.1
Total Expenditures	**11.7**	**11.7**	**9.6**
Old-age Pensions	7.7	8.3	6.7
Other Benefits and Administration	3.9	3.4	2.9
Cash Surplus	**0.7**	**-0.2**	**0.8**

Source: Table 3

The reform did bring substantial savings relative to the old system. Box 10 shows the sources of improvement in greater detail. Both an increase in revenues and a reduction in benefits relative to the old system are projected. The main sources of the savings are:

- *Indexation*: Even with the large real increase granted in 1998, and with real increases in pensions from 2000 – part wage, part price indexation instead of 100% price indexation – this measure accounts for 30 percent of the total savings by 2005;

- *Other legal changes*: The switch to the new pension formula, by reducing benefits for early retirees, provides 20 percent of the savings;

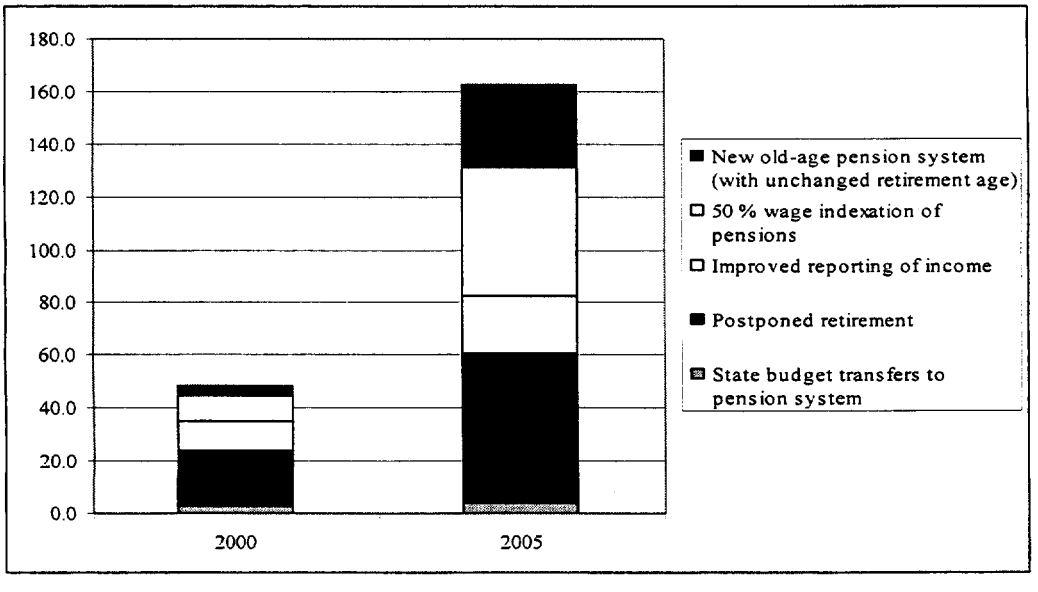
- *Incentive (behavioral) effects*: Postponed retirement decreases pension expenditures. The decline in evasion increases social insurance expenditures. The net effects produce expenditure savings amounting to 13 percent of the total projected savings. Revenues are increased by both longer work careers (postponed retirement) and decreased evasion. These effects account together for 35 percent the projected total effect.

Of the effects shown, the behavioral effects are obviously more speculative, and deserve comment. Note that for the baseline scenarios used in the long-term analysis below, we do not incorporate these effects. Why do we nonetheless think these savings will occur? With respect to the retirement age, even with absolutely no information provided to potential new pensioners, the average pension age is increasing and the number of new pensions granted is decreasing. In countries with similar incentives built into their systems -- that is high actuarial increments and low marginal taxation of earnings -- over 40 percent of the population age 60-64 works full time (Gruber and Wise, 1999), whereas in Latvia the

participation rate is only 27 percent in this age group. So even if they take the pension, we expect an increasing share of this age group to continue to work (generating at least a revenue effect). In addition, in OECD countries those who do work tend to be higher income, whereas we have assumed they are average income thus biasing this estimate downwards.

Box 10: Breakdown of the Fiscal Effects of Pension Reform
(millions of 1997 lats)

	2000	2005
Effect on Total Revenues	**24.4**	**61.0**
Share of GDP	**0.6%**	**1.1%**
Breakdown of revenue effects:		
State budget transfers to the pension system	3.0	3.9
Postponed retirement	9.1	28.4
Decline in evasion	12.3	28.7
Effect on Total Outlays	**-24.1**	**101.9**
Share of GDP	**-0.6%**	**-1.9%**
Breakdown of expenditure effects:		
50 % wage indexation of pensions	-9.5	-48.2
New old-age pension system *(with unchanged retirement age)*	-3.9	-32.0
Postponed retirement	-11.9	-28.7
Decline in evasion	1.2	7.0



With respect to the coverage effect (decline in evasion), currently about 72 percent of the estimated labor force participates in the social insurance system. Our estimates project this to rise to about 74 percent of labor force by 2005. While it is true that pension systems in Latin America have not realized large coverage gains after moving to systems that tie

benefits more tightly to contributions, we are more optimistic for Latvia. This is because unlike in Chile, collections remain centralized, and major efforts are underway to modernize the tax system (see above). These have already paid off, even though the system is not yet automated and most of the training and management improvements are ahead (Murray and Fox, 1999).

The second reason is the nature of the uncovered sector. We have recently done an analysis of the labor force based on new labor force survey data, which uses ILO-approved definitions for constructing variables. Survey data report total unemployment at about 15 percent in 1998, compared with about 7 percent registered at employment offices. A large share of the uncovered (perhaps 50 percent) are probably unemployed, but not registered and not receiving benefits (they are probably ineligible owing to duration of spell or lack or prior contributions). As privatization completes and the economy recovers from the Russia crises, we expect Latvia's uncovered unemployment rate to decline from about 9 percent of the labor force to about 3 percent.

Will these savings be realized and distributed to future generations, given the trends of the last two years, or will they be distributed to current pensioners? Our projections are optimistic on this point. It should be noted that the projected decline in the payroll tax (required by law) should provide a brake on the tendency of Parliament to distribute the savings to pensioners, since this money will not come into the budget, and they would have to raise taxes to get it. The creation of the second tier (expected in 2000) and the introduction of some form of modified price and wage indexation will provide an additional counterweight, in part improving the standard of pensioners while at the same time directing the cash surplus to savings.

LONG TERM MACROECONOMIC STABILITY

The long-term goal of the Latvian reform has been to create financial solvency in the social insurance system, at a lower tax rate. Currently, old-age and survivors' pensions plus administration of these benefits cost about 27.5 percent of covered wages. Latvia's goal is to get this cost down to, on average, about 23 percent of covered wages (20 percent for pensions, 1 percent for survivors, and 2 percent for administration and reserves). This is the amount Latvia would like to allocate on average to old-age security from current covered income and would correspond to what is credited into the notional account. Baring major economic or demographic shocks, this should provide a pension of about 50-60 percent of final earnings for 12-14 years (the expected average post-retirement lifespan). Latvia also needs to build up a reserve against demographic and economic shocks.

Long term system stability and solvency requires the ability to withstand the shocks to which pension systems, especially public PAYGO system, are vulnerable. Systems that cannot respond to shocks cannot achieve the goal of improving old-age security. Latvia's pre-reform system could not withstand the important shocks without a new financial crisis, requiring a major reform or an increase in contributions. The simulation below shows that the new system is much more stable, allowing pension costs to remain close to the individual NDC contribution rate of 20 percent.

Box 11 compares the results for new and old PAYGO systems. Expenditures are shown as a share of GDP. To make the systems most comparable, no behavioral responses to incentives to delay retirement are assumed. In addition, the pension age under the old system is assumed age 55 for women and 60 for men. Both systems were subjected to the following shocks:

- ***Longer life expectancy*** (higher survival rates), which increases pension expenditures; and

- ***Low coverage*** which decreases revenues *without* decreasing liabilities in the old PAYGO system (shown in the inverse, as a positive shock to the baseline PAYGO scenario).

Under the most pessimistic scenario (no improvement in coverage, survival rate increase gradually), the results are most striking. The new PAYGO system is still able to lower expenditures to the target of 20 percent of payroll – or about 7 percent of GDP - while the old system would have to raise contribution rates to 50 percent of payroll – or about 17 percent of GDP. Under the most optimistic scenario, expenditures in the old system would still be only slightly under 15 percent of GDP, requiring a large increase in the payroll tax to eliminate the system deficit.

Stability is insured in the NDC system in part by the maintenance of reserves. These are needed to address the gradual increase in liabilities Latvia faces as the population ages. With the growth of the second tier, (the maintenance of reserves in the NDC system earning a market rate of return) by 2035, the reserves are estimated at about 20-40 percent of GDP. If these reserves are not maintained, contribution rates would have to rise in the NDC system. This is one of the key purposes of the second tier. Note that if the rate of return on second tier funds is higher than the projected rate of growth of wages, actual pensions will be even higher. Our projections completely ignore this dimension of the pension reform.

How does the new system maintain stability? In the NDC system, entitlements and, hence, benefits are linked to contributions. There are three important mechanisms at work. First, non-compliance results in commensurately lower entitlements in the NDC system. For example, if only 72 percent of earnings are reported, then this is the basis for actual payments. In the old system, years of service and the economy-wide wage at retirement determined an individual's benefit. Simply paying contributions at the minimum wage was enough to get benefits. Second, the NDC formula takes life expectancy from the pension age into account. Benefits will decrease gradually as longevity increases, if people do not work longer (in our simulation, about 6 percent by 2050). In the old system, pension costs simply increased as people lived longer. Third, the new system has a combination of wage and price indexation, which helps to provide stability as the labor force contracts.

Box 11. Projected Old-Age Pension Expenditures

Year	2000	2010	2020	2030	2040	2050
THE NEW NDC PAY-AS-YOU-GO SYSTEM						
1.1 Present (72%) coverage and baseline survival rates						
Total expenditures*	8.7%	6.7%	6.1%	5.8%	5.6%	5.7%
Average benefit (lats)	52.8	59.3	60.9	65.2	72.3	81.6
System dependency ratio**	67.2%	73.6%	89.7%	97.4%	104.1%	114.0%
1.2. Present (72%) coverage and high survival rates						
Total expenditures*	8.6%	6.6%	6.3%	6.2%	6.1%	6.1%
Average benefit (lats)	51.8	56.4	57.4	61.1	68.0	76.9
System dependency ratio**	67.5%	76.4%	99.2%	111.4%	119.1%	128.3%
1.3. Gradual increase in coverage to 90% by 2019 and Baseline survival rates						
Total expenditures*	8.8%	7.0%	7.0%	6.9%	6.9%	7.0%
Average benefit (lats)	53.0	62.5	70.3	78.2	88.0	99.9
System dependency ratio**	65.4%	65.7%	71.7%	77.9%	83.3%	91.2%
THE OLD PAY-AS-YOU-GO SYSTEM						
2.1 Present (72%) reporting of earnings and baseline survival rate						
Total expenditure*	8.8%	7.0%	7.0%	6.9%	6.9%	7.0%
Average benefit (lats)	53.7	75.9	109.1	140.2	172.7	210.9
System dependency ratio**	67.2%	73.6%	89.7%	97.4%	104.1%	114.0%
2.2. Present (72%) coverage and high survival rates						
Total expenditures*	8.9%	8.9%	12.0%	14.2%	15.4%	16.6%
Average benefit (lats)	53.7	75.8	108.4	139.7	173.0	211.2
System dependency ratio**	67.5%	76.4%	99.2%	111.4%	119.1%	128.3%
2.3 Gradual increase in coverage to 90% by 2019 baseline survival rates						
Total expenditures*	8.9%	8.7%	11.0%	12.5%	13.5%	14.7%
Average benefit (lats)	53.8	76.9	110.2	140.4	172.7	210.9
System dependency ratio**	65.4%	65.7%	71.7%	77.9%	83.3%	91.2%

* Share of projected GDP

** Pension/contributors

Notes: 1. See Annex 1 for assumptions.

2. Benefits in the old system are indexed by the rate of growth of the per capita wage. In the NDC system NDC capital is indexed by the wage sum on which contributions are paid. Benefits are based on a "Swiss index" of 50 % prices and 50 % wage sum. Average benefit in Lats per month in 1997 prices. All pensioners are assumed to retire at the pre-reform retirement ages of 55 for women and 60 for men.

The impact of indexation of benefits. The most important factor insuring sustainability is the impact of different indexation provisions on pension benefits. Under the old system, benefits were wage indexed. Under the new system benefits are only partially wage indexed. In a period of real wage growth, lifetime pension benefits under the old system

would be higher than under the new system. With real per capita wage growth of 4 percent per annum, wage indexation would give a benefit increase of almost 50 percent after 10 years. Wage sum growth would give even more, to the extent that earnings are increasingly covered in the formal economy. On the other hand, this trend will be gradually offset by an expected demographic-led fall in the labor force. An increase in coverage (up to 90 percent of total labor income below the ceiling by the year 2020) increases the pension through this indexation. Depending on the demographics, using the wage sum as an indexer may produce higher pensions than using the per capita wage. In Latvia, our estimates indicate that under current trends, around 2025 the per capita wage begins to give higher indexation than wage sum as an indexer. However, indexation with the contribution wage sum keeps the system in financial balance with the steady decline in the labor force, given the decline in the number of working aged persons in the present baseline demographic scenario.

Box 12: Projected Old-Age Pension Expenditures, New Pay-As-You-Go System

Increasing Pension Age

		2000	2010	2020	2030	2040	2050
3.1	**Present (72%) coverage and baseline survival rates**						
	Total expenditures*	8.3	5.3	5.0	5.7	5.7	5.7
	Average benefit	54.2	68.6	90.0	108.8	123.1	137.2
	System dependency ratio**	61.6	50.1	49.7	57.6	61.6	67.1
3.2	**Present (72%) coverage and high survival rates**						
	Total Expenditure*	8.2	5.3	5.3	6.2	6.3	6.1
	Average benefit	53.3	65.7	83.2	99.5	113.8	128.0
	System dependency ratio**	61.9	52.4	56.7	67.9	73.0	77.8

* Share of projected GDP

** Pension/contributors

Notes: 1. See Annex 1 for assumptions.

2. Benefits in the old system are indexed by the rate of growth of the per capita wage. In the NDC system NDC capital is indexed by the wage sum on which contributions are paid. Benefits are based on a "Swiss index" of 50% prices and 50% wage sum. Average benefit in Lats per month in 1997 prices. All pensioners are assumed to retire at the pre-reform retirement ages of 55 for women and 60 for men.

The calculations in Box 11 assume people retire at the old law pension ages of 55 for women and 60 for men. Under the new system, the retirement age of women will increase to 60 by 2005 (assuming the early retirement provisions are removed). The average retirement age could become even higher in the next half century if only a portion of workers postpone their retirement longer. As a result, the simulations in Box 11 understate the average pension and overstate the dependency ratio (since the system is acuarially fair, they do predict expenditures well). Simulations showing this behavioral response to the incentives are shown in Box 12. The higher retirement age leads to a lower dependency ratio and higher pensions than the previous scenarios, but without significantly affecting the cost expressed as a percent of GDP.

III. CONCLUSIONS: EVALUATION OF LATVIAN PENSION REFORM

At this writing (August, 1999), Latvian pension reform is an unfinished work, as the second tier is not yet in place. And the first tier has not been an unqualified success, as the constant pressures for change have shown. Nonetheless, the creation of the new, defined-contribution first tier pension system in 1996 was a major achievement. Compared with the old system, the new system has been more affordable, equitable, and transparent. Adding the regulatory framework for privately-managed pension should stimulate the development of the capital market as well as provide additional retirement savings for middle and upper income households.

Affordability. The reduction in entitlements will allow pension expenditures as a share of GDP to fall steadily over the next ten years. Any impact of the incentives to delay retirement will provide an even greater short term surplus. The system will still be expensive, however, and will have to rely on inter-generational redistribution to pay the costs. Even with these reforms, payroll taxes will remain high, financing transfers over the medium term. The normal payroll tax rate today is 37 percent, paid mostly by the employer. It will fall to 33 percent in 2002, and be shared equally between the employee and the employer. The high costs of the system stem from the inheritance of the past -- too many people retired too early, and still have a strong political and economic claim on the system. Major reductions in system cost at this point could only be achieved by cutting back pensions already given -- an unlikely prospect in a democracy. However, Latvia's payroll tax rate and projected expenditures over the next 10 years will still be lower than Poland or Hungary, the two reform leaders in Central and Eastern Europe. It will also still offer an acceptable replacement rate, important in a transition economy where informal family systems eroded in the Soviet period.

Provided the system survives the political process intact, the NDC system offers a high degree of expenditure stability and affordability compared with the old system. A major reason is the automatic adjustments to demographic shocks, which lowers the overall systemic risk of the PAYGO system.

Social Protection. The new pension system will provide excellent income replacement (50 percent of pre-tax earnings, 75 percent of net earnings after taxes) for those who contribute at least 40 years, even if life expectancy increases by 10 percent. Popular discontent with the system stems in part because this is lower than the promised replacement under the Soviet system, but this system was unsustainable. The pension credit for spells of unemployment, sickness, or time out of the labor force to care for children also provides social protection for important segments of the population.

A pure defined contribution approach may not offer sufficient income guarantees for the lifetime poor. The Latvian system includes a minimum guaranteed pension at the level of the social pension for all those over 60 who have contributed to the system for at least 5 years. This guarantee is set by the Government and today is about 28% of the average age.

The purpose of this guarantee is to transfer some of the cost of maintaining the lifetime poor elderly from the social assistance system (and the state budget) to the pension system fund. The size of the transfer made will depend on the level of guarantee. At the current level of the social pension, few persons with over 25 years of service should be in need of the guarantee. However, if the guarantee level is increased in real terms (or the informal sector balloons, with a large number of non-contributors for a long time), the guarantee would become more costly. In this case, it would violate the key principle of the new scheme -- a contributor only receives a benefit related to his or her contribution.

Should the guarantee be maintained? This is a complicated question. Some redistribution to the elderly is necessary in any society. In a transition economy, relying on informal family systems is not appropriate since the Soviet period broke this tradition, substituting formal systems for traditional transfers. In terms of administrative costs, the guarantee may be cost-effective, as it saves the social assistance system from constantly means-testing someone who would normally not be expected to return to work. However, it may not be a very targeted social expenditure, since it does not depend on the income of the consumption unit (e.g. whether the pensioner lives with a working spouse or adult children, how many income-earning assets they own, etc.). Since most pensioners in Latvia do not live alone, the potential for leakage to higher income households is high. This is the argument for reliance on the social assistance system for poverty alleviation, including for the elderly. Guarantees also erode incentives to contribute for low income workers. How important is this in Latvia? With guarantee currently set well below the minimum wage, it should not be a large disincentive, as most workers should not expect to be covered. For Latvia, the right balance might be to maintain the guarantee at about the current level in real terms. A budget transfer to cover the difference between the pension entitlement and the guarantee could be instituted to increase the integrity of the contribution-based system.

Equity. The new system is less redistributionery than the old system. Higher income workers get much more out of the new system than the old Soviet system. In the post-Soviet world, this decrease in redistribution has strong political support. It is the flip side of one of the main tenants of the NDC system: that everyone is treated the same way, and no one receives more than what they (or the state on their behalf) paid for. The cost of reducing the labor market distortions of the payroll tax is the loss of redistributions.

Special groups which had favorable treatment under the Soviet system lose out (for example, ballet dancers, pilots, and all the other groups who had an early pension), although there are generous transition provisions for those who have been in these occupations at least 20 years. Women who take the early retirement option are big losers under the new system. Indeed, these women may end up quite poor as they live out their expected 20+ year post-retirement life span. To reduce this poverty risk, Latvia should remove the early retirement option from the current system.

Costs associated with changing demographics are paid by the retiring generation. The new system permits a flexible adjustment of benefits to changes in life expectancy. This is very important in transition economies such as Latvia, where current high mortality rates for men over 50 are not expected to continue into the next century. The new system can

deliver higher pensions now, with an automatic adjustment as demographic trends change. This avoids the whole acrimonious debate over retirement age which has plagued Eastern European countries.

Of course, as life expectancy increases, benefits fall for a given level of contributions. This happens whenever the annuity is "purchased" at retirement. However, if benefits do not fall as life expectancy increases, then the burden for the next generation grows until it is unfinancable. This is an increase in intergenerational equity offered by the NDC system. It strongly reduces the need for a large tax increase or a wrenching downsizing later, thus helping to protect future generations.

PROBLEMS WITH LATVIA'S NDC SYSTEM

Transition rule. In any system, this is one of the most difficult questions. Since the main purpose of reforms is to cut benefits, it is difficult to be fair with accrued rights. In transition economies such as Latvia, the problem is compounded by the hyperinflation of the initial transition years, which makes the valuation of these rights almost impossible. The Latvian choice (recommended by the authors) weighted very heavily the first years after the passage of the law. For those having good years, this seemed fine. But for those nearing pension age and having bad years (e.g. spells of unemployment or non-payment of wages and contributions) these years weighted heavily in the final pension, in a way that was considered unfair. This ultimately led to Parliament-imposed changes. Since the earnings distribution was quite flat during the Soviet years (both with respect to age and skill level), a better choice from the start might have been to use some mixture of the economy-wide average wage and the individual's wage to value the capital. Certainly Latvia's rule would pose problems in a normal (non-transition) economy with more wage dispersion (between age cohorts and lifetime).

Implementation burden. Moving to a contribution-related system involves a significant investment in information management. Latvia is only now installing the information technology needed. As a result of this lag, the time needed to calculate new pensions stretched from about 10 working days before the reform to 40 days currently. The new IT system should eventually cut this time to 15 minutes.

Explaining pension reform to the population is not a simple task, especially for a young agency such as the SSIA. While the concept of the NDC system is quite simple, the application, with all the complexities of the transition rules, is a mouthful at best. At the time the law was passed, no communications or training plan was in place. Subsequently, booklets were printed and television and radio spots were prepared, but training of staff in the regional offices only began a year after the law passed. This lack of basic information and explanation was surely one of the factors which contributed to public dissatisfaction with the reform, and the ensuing counter-reform. (Contrast this with Poland, where the communications plan was in place before the design stage was complete).

Sequencing. Latvia prepared the PAYGO reform first, in response to fiscal pressures. The next phases of the reform did not follow as quickly as had been envisaged. Was this a

result of poor sequencing? It is noteworthy that Hungary prepared the third pillar first, and then the second and the first together. Poland prepared the third and second pillar reforms first, and left the first pillar to last. However, both countries prepared and implemented their PAYGO reforms well behind Latvia, and were not able to cut benefits over the nearest decades as sharply as Latvia. It is probably too early to comment on sequencing, and the "big bang" approach of Poland and Hungary compared with Latvia's phased approach. There is no question, however, that Latvia lost momentum after the PAYGO reform, and the implementation problems caused the whole reform process to lose credibility.

Final thoughts. Latvia's NDC reform solved an important long-term fiscal problem because it provided a means to cut future benefits in a manner that was broadly perceived as fair. It also improved incentives to contribute by making benefits dependent on lifetime contributions, thus reducing the labor market distortion from the mandatory payroll tax. In Latvia, the NDC system fundamentally changed the tone of the debate. It helped to neutralize many of the special groups blocking pension reform.

The NDC approach is not the only way to achieve these goals. Benefits dependent on lifetime contributions, for example, can be built into any PAYGO DB system as well (The Hungarian, U.K., and U.S. systems are all examples). But in the post-Soviet environment, the NDC may be a good answer.

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ANNEX 1: GENERAL SCENARIO ASSUMPTIONS FOR LONG TERM PROJECTIONS

- **Contribution wage growth**: 1998: 8.9%; 1999: 5.1%; 2000-2001: 4.5 %; 2002-2005: 4.2%; 2006-2010: 4%; 2011-2015: 3.5%; 2016-2020: 3%; 2021-2050: 2%;

- **Arrears**: Gradual decrease from 5 % (1998) to 2 % in the year 2010 as a result of improved tax collection;

- **Total social taxes as a % of total earnings** (old-age, disability, sickness, work injury, unemployment, maternity and child care income benefits, funeral benefit): 1997-2001: ca 35 %, 2002-2050: ca 32.2 %. Note the self-employed and working pensioners pay less and receive less coverage;

- **Coverage as a % of total labor force** (scenario 1.3, 2.3): 1998:74 %; 2002:75 %; 2005:76 % with an approximate increase of one percentage point per year through year 2020. From year 2020 it remains at 90 %;

- **Pension Age:** Box 11: Women 55, Men 60. Box 12: Pension age (baseline) Men 1996: 60; 1998: 61, 2002:62; 2011:64; 2018:65. Women 1996:55; 1999:56; 2001:57; 2003:58; 2005:59; 2007:60; 2009:61; 2011:62; 2013:63; 2018-2050:64.

- **Fertility rate:** 1998: 1.12; 2000:1.20; with an increase of 0.80 per year through 2005 reaching 1.6; and then by 0.60 per year through 2010 reaching 1.90 from which there is an increase of 0.10 per year through 2030 to 2.1, where it remains through 2050;

- **Survival rates**: (life expectancy at age 60). The assumption in the "High" scenario is that Latvians achieve the survival rates of Sweden in 1997 in the year 2015.

Year	2000	2010	2020	2030	2040	2050
Baseline survival						
Men	14.8	15.9	16.5	17.0	17.7	18.3
Women	19.7	20.6	21.1	21.5	22.0	22.5
High Survival						
Men	15.4	18.2	19.9	19.9	19.9	19.9
Women	20.4	22.5	23.7	23.7	23.7	23.7

TABLE 1: LATVIA - CONSOLIDATED SOCIAL INSURANCE AND SOCIAL ASSISTANCE EXPENDITURE, 1985 - 1999 (thsd. Lats)

	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998 (est.)
Expenditure	**3163.5**	**4325.5**	**14165.6**	**95611.8**	**214734.8**	**302287.5**	**346967.6**	**414552.0**	**448106.2**	**494497.2**
Short – term benefits	**540.5**	**641.5**	**988.9**	**6612.9**	**17629.0**	**23432.0**	**28634.3**	**29998.0**	**22051.5**	**31118.9**
Sickness allowance	430.5	534.5	782.2	3996.4	7795.1	11765.0	15040.4	13647.6	3135.9	5778.8
Maternity leave	97.0	96.5	164.9	1075.4	1738.3	2049.9	2449.1	2557.3	2688.5	3949.8
Birth grant	13.0	10.5	30.1	162.2	375.5	827.3	1601.5	1848.6	2195.1	3316.8
Funeral benefit			2.3	367.4	1040.8	1796.1	2104.7	2247.5	2516.3	3143.8
Unemployment benefit				1000.3	6510.7	6854.8	7294.9	9576.0	11447.7	14708.9
Benefits related to disability*									18.3	160.2
Other			9.4	11.2	21632.3	138.9	143.7	121.0	49.7	60.6
Family benefits (total)	**65.0**	**124.0**	**834.0**	**20232.4**	**36815.2**	**35336.8**	**34248.7**	**37114.5**	**38278.1**	**41473.7**
Extended maternity leave			565.0	4710.7	8923.7	7825.9	7110.2	6526.9	5608.2	8272.7
Family allowance			8.4	14990.0	27891.5	27510.9	27138.5	28652.4	30472.3	29973.9
Grant for disabled children								1935.2	2197.6	3227.1
Kindergarten subst. Allowance			260.6	531.7						
Pensions	**2491.5**	**3411.5**	**11193.5**	**62205.9**	**141129.6**	**199568.7**	**243808.5**	**302542.8**	**344146.8**	**405821.1**
Old – age pensions			8638.0	44346.9	90139.9	150222.3	181844.8	231467.7	268622.5	316107.9
Disability pensions			1563.5	12422.6	19736.5	34770.5	43510.3	49661.1	52018.4	59703.5
Survivor's pensions			537.5	2853.7	5406.9	8329.1	10404.6	12443.8	13558.1	15758.3
Service pensions			454.5	106.8	236.4	585.2	709.4	2721.1	3167.6	4031.4
Social pensions				1756.1	2840.8	3837.3	4672.9	3276.4	3264.7	4161.1
Min. of Internal Affairs pensions				719.8	1305.4	1824.2	2666.5	2972.7	3515.5	6058.9
Employment expenditures			**915.7**	**210.2**	**1232.3**	**2639.8**	**2358.7**	**2186.8**	**2985.5**	**5086.0**
Social Assistance and Care	**44.0**	**107.0**	**209.4**	**2142.3**	**13346.4**	**36343.0**	**31268.3**	**34390.8**	**31821.0**	
Social Assistance				1404.3	10361.6	24785.5	14667.7	14751.2	13532.9	n/a
Social Care				738.0	2984.8	11557.5	16600.6	19639.6	18288.1	n/a
Social Insurance Administration			**24.1**	**3065.2**	**4582.3**	**4967.2**	**6649.1**	**8319.1**	**8823.3**	**10997.5**
Other expenditure	**22.5**	**41.5**		**1142.9**						
Revenue	**2751.5**	**4778.0**	**15210.3**	**102659.3**	**180315.1**	**265232.2**	**345981.5**	**384920.4**	**450733.3**	**487359.6**
Social tax receipts	1052.0	2210.0	14812.0	87385.8	165438.2	230130.0	289176.7	321970.1	383859.3	427678.4
Budget transfers	1687.0	2555.0		4250.0	11698.3	25779.7	40545.7	42266.3	43810.9	49036.8
Municipal budget participation				1404.3	1648.2	4058.8	14667.7	14751.2	13532.9	n/a
Other receipts	12.5	13.0	398.3	9619.2	1530.4	5263.7	1591.4	5932.8	9530.2	10644.4
Expenditure in % of GDP	7.5%	6.9%	9.9%	9.5%	14.6%	14.8%	14.8%	14.7%	13.7%	13.1%
MEMO item:										
GDP	42220.0	62440.0	143325.0	1004555.0	1467012.0	2042555.0	2349223.0	2829135.0	3275500.0	3777500.0

*- due to accident in workplace and/or professional disease

TABLE 2: LATVIA: OLD AND NEW PENSION LEGISLATIVE PROVISIONS

CATEGORY	OLD LAW	NEW LAW
Old age pensions	**Law on State Pensions.' 11/29/90, original law**	**Law on State Pensions' Effective 1/1/96**
Formula	P= (0.3*W) + (W*0.004*L) P= pension W= nat'l average wage for prev. quarter L= total length of service	P= K/G K= pension capital of insured, composed of imputed and registered social insurance contributions adjusted with wages G= life expectancy coefficient at pension allotment. (P cannot fall below social pension if pensioner is at least 60 years old at the time pension granted).
Length of service	20 for women and 25 for men, 5 years minimum	10 year minimum
Incomplete service	Pension is reduced proportionately, and pensioner made ineligible for favorable conditions.	Not allowed.
Qualifying service	Employment, military service, educational period, in-service training, time repressed, temporary inability to work, nursing group 1 invalids or disabled child to 16, raising children to age 8. Work with lepers and AIDS patients doubles service period. Incomplete payment of social tax reduces service credit by 50%.	Contributing periods, also disability, unemployment, sickness and maternity, military, occupational illness or injury. Each non-contributory period has provisions for contributions to SIF from budget or elsewhere.
Normal pension age	55 for women and 60 for men, if length of service fully met.	No 'normal' age. Minimum is 60. Normal is expected to be 65.
Indexation of benefits	By 'changes in index salaries according to social insurance revenues'.	To prices until 2000. 'Taking into account prices and wages' after 2000.
Taxation of benefits	Tax exempt	Social tax exempt (Social Tax law, Art.6). Working pensions subject to income tax.
Early retirement	Granted to disabled, mothers with 5+ children, lilliputians, dwarves, the blind, Chernobyl workers, those in defined hazardous occupations, and those in special occupations (i.e., pilots and dancers).	All categories phased out; except women, who can receive an actuarially fair pension at 55. (This provision is scheduled to be repeated).
Credit for deferred pension	Pension increased by .3,for each full year worked.	Pension can be recalculated once every 3 years, taking into account additional Contributions.
Additional credits	Pension formulas are more generous for disabled veterans, interior ministry and border guard workers.	Ministry of Interior supplements pensions from their budget for their retirees.

Disability Pension	Law on State Pensions'	Law on State Pensions.'
Formula	Group I - disabled receive an additional 0.4* the basic pension. Group II - receive an additional 0.2 times the basic pension. Group III - receive the old age pension.	Group I - 0.45* the individual average Contribution wage + (service years/45)*0.1* the individual average contribution wage. Group II - 0.40* the individual average contribution wage + (service years/45*0.1* the individual average contribution wage. Group III - the social pension.
Length of pension	Duration of disability. For permanent disability, until death.	Until age 60.
Minimum pension	30 percent of average quarterly wage	Social pension
Qualification	Injury or disease, and sufficient length of service.	Same, but occupational injury or disease covered by separate law.
Certification	Medical commissions	Medical commissions
Length of service	Depends on age, ranges from 1 year at age 23 to 15 years at age 61 or over.	None.
Taxation	Tax exempt	Social tax exempt
Survivors Pension	**Law on State Pensions'**	**Law on State Pensions'**
Formula	Basic pension plus 0.004* the reference wage. Disabled survivors receive the full retirement pension each.	50% of expected retirement pension for one survivor, 75% for two, and 90% for three or more.
Minimum pension	Social pension	Social pension
Eligible survivors	Disabled children under 18 (24), disabled siblings or grandchildren under 18 if parents unable to work, parents or spouse over retirement age or if disabled, divorced spouse receiving alimony, any family member not working and caring for children under 8, and grandparents without caregivers.	Children under 18 not working, disabled children under 18, student children to age 24, brothers, sisters, and grandchildren to age 18 without parents capable of work. They must be fully dependent on the Deceased.
Length of service	If occupational causes, non. If other, same as old age pension. Reduced proportionately if service is not met.	Same as old age pension.
Benefit termination	Upon ability to work	Upon ability to work or reaching age 18.
Taxation	Tax exempt	Social tax exempt (Social Tax law, Art.6)
Social Pension	**Law on State Pensions'**	**Law on Social Assistance'**
Formula	Latvian citizens receive the basic pension. Foreign citizens receive 90% of the basic pension.	Set by Council of Ministers.
Qualified applicants	Non-working citizens. Group 1/2/3 disabled, men over 65 and women over 60, disabled children to 16, surviving dependent children	Those unemployed not receiving state pensions who are 5 years over the pension age.
Taxation	Tax exempt	Tax exempt according to SA law (unless tax law specifies otherwise).

TABLE 3: ACTUAL AND PROJECTED SOCIAL INSURANCE BUDGET 1993-2005. MILLION 1997 LATS.

Year	1993	1994	1995	1996	1997	1998 (est.)	1999	2000	2001	2002	2003	2004	2005
Social tax	**364.5**	**374.9**	**370.7**	**352.7**	**383.9**	**408.5**	**436.3**	**460.4**	**490.2**	**465.6**	**492.3**	**519.6**	**550.1**
State budget transfers to pension fund	-	-	-	-	2.6	2.5	3.0	3.0	3.2	3.4	3.6	3.8	4.0
Other transfers, penalties, interest etc.	-	-	-	2.7	4.9	7.4	1.0	1.0	1.0	1.0	1.1	1.1	1.1
Total revenues	**364.5**	**374.9**	**370.7**	**355.4**	**391.4**	**418.4**	**440.3**	**464.4**	**494.4**	**470.0**	**497.0**	**524.4**	**555.2**
Expenditures													
Pensions	305.6	318.1	304.8	324.4	341.1	383.6	410.8	417.0	415.6	422.4	437.1	444.1	445.1
Old age	195.1	239.3	231.8	250.8	267.0	301.9	327.2	333.2	334.0	340.0	353.8	359.7	359.7
Disability	42.7	55.5	55.5	52.2	53.6	57.0	59.1	59.6	58.1	59.5	60.9	62.8	64.5
Survivors	11.7	13.2	13.3	13.4	13.8	15.1	15.8	15.7	15.5	15.2	15.0	14.6	14.2
Other	56.1	10.0	4.3	7.9	6.7	9.6	8.7	8.4	8.0	7.7	7.3	7.0	6.6
Sickness benefits	16.9	18.8	19.1	14.7	3.3	5.4	6.5	6.8	6.7	7.1	7.4	7.8	8.3
Maternity benefits	3.9	3.2	3.2	2.8	2.5	3.9	4.4	4.6	5.2	5.7	6.4	7.1	10.1
Funeral benefits	2.2	2.9	2.7	2.4	2.4	3.0	3.3	3.3	3.3	3.4	3.5	3.6	3.7
Unemployment benefits	16.7	15.1	12.4	13.0	14.3	18.9	26.7	27.0	27.1	26.9	27.1	28.1	29.1
Work injury benefits	-	-	-	-	0.1	0.3	0.2	0.3	0.3	0.4	0.4	0.8	0.9
Other benefits	81.0	57.8	0.1	0.1	-	0.1							
Administration	10.0	7.8	7.4	8.0	8.8	9.6	11.8	12.3	13.7	15.1	15.8	16.5	17.1
Total expenditures	**436.1**	**423.7**	**349.7**	**365.5**	**372.5**	**424.8**	**463.7**	**471.4**	**471.9**	**481.0**	**497.8**	**508.1**	**514.3**
Cash surplus	**-71.7**	**-48.8**	**21.0**	**-10.1**	**18.9**	**- 6.4**	**- 23.4**	**- 7.0**	**22.5**	**- 11.0**	**- .8**	**16.4**	**41.0**

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Summary Findings

In 1995, Latvia became the first country in Central and Eastern Europe to implement parametric reform of the Soviet-style PAYGO pension system, and the first in the world to implement the "notional defined contribution system" originally designed for Sweden. The Government's intention was to follow the overhaul of the PAYGO system with the creation of a funded second tier by 1998, but the reform has lagged. Public acceptance of the new system has been poor, and pressures for rollback of the reforms have grown. After such a splashy beginning why did the Latvian reform stall? What has been the net effect of the reforms after the roll backs? How did Latvia balance the difficult issues of system incentives, fairness (within and across generations) and affordability? What are the lessons of the Latvian experience with the NDC system for other reforming countries? These questions are the subject of this paper. It includes a description of pre-reform situation, describes the key provisions of the original reform and discusses the subsequent amendments. The impact of the reform is assessed on the basis of macroeconomic and microeconomic simulations. On the basis of those, the reforms are evaluated and conclusions for other countries are drawn.

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